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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,047	12/29/2000	V. S. Somayazulu	TAL:7146.092	9302
7590	03/25/2004		EXAMINER	
Timothy A. Long Chernoff, Vilhauer, McClung and Stenzel, L.L.P. 1600 ODS Tower 601 SW Second Ave. Portland, OR 97204			TSE, YOUNG TOI	
			ART UNIT	PAPER NUMBER
			2634	5
			DATE MAILED: 03/25/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/753,047	SOMAYAZULU, V. S.
	Examiner YOUNG T. TSE	Art Unit 2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 29 December 2000.
2a) This action is **FINAL**. 2b) This action is non-final.
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-12 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 7,8,10 and 11 is/are allowed.

6) Claim(s) _____ is/are rejected.

7) Claim(s) 1-6,9 and 12 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 29 December 2000 is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ .
5) Notice of Informal Patent Application (PTO-152)
6) Other: ____ .

DETAILED ACTION

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: the reference signs “φ1” and “80” are not shown in figures 4, 5, and 9 as mentioned on page 13, lines 12 and 24 in the specification. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to because the block pertaining elements (252, 256, and 258) in Fig. 10 need to have descriptive label, in conformance with 37 CFR 1.84(n) and 1.84(o). For example, a descriptive label of “Weighting Element” should be inserted into Fig. 10 to properly describe element (252). Further, in Fig. 4, “16” should be labeled in the top portion between the blocks 114 and 116; in both Figs. 9 and 10, no arrow flows are labeled between block 226 and the chip butterflies 204, 206, and 208 or the weighting elements 252, 256, and 258; in Fig. 10, “256” (between blocks 260 and 262) should be –258--. A proposed drawing correction or corrected drawings are required in reply to

the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the comparator and the register as recited in claims 9 and 12 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities: on page 12, line 30, "50" should be --66--; on page 13, line 18, "eight outputs" should be --four outputs--and lines 28-29, Applicant is requested to update the information of the co-pending U.S. Patent application; on page 14, line 12 and line 16, "146" and "152" should be --152--and --148--, respectively; on page 17, line 12, "256" should be --252--; and on page 18, line 3, "reference" should be --reference--. Appropriate correction is required.

Claim Objections

6. Claims 1-6 are objected to because of the following informalities: in both claim 1 and claim 4, the repeating steps (a) -- (h), step (a) appears to be not included. Claims

2-3 and 5-6 are depended upon claim 1 and claim 4, respectively. Appropriate correction is required.

Allowable Subject Matter

7. Claims 7-8 and 10-11 are allowed.

8. Claims 1-6 would be allowable if rewritten or amended to overcome the objection(s) set forth in this Office action.

9. The following is a statement of reasons for the indication of allowable subject matter: references Dent (Patent No. 5,305,349) and (Patent No. 5,377,183) are related to phase shift keying correlators. However, the prior art fails to show or suggest a correlator includes a triddle factor indexer for providing three respective twiddle factors to a series of butterfly transformer processors or weighting elements for correlating each combination of the set of twiddle factors and a set of signal samples to select a largest correlation selected as a received signal.

Conclusion

10. This application is in condition for allowance except for the following formal matters:

The objections described in paragraphs 1-6 above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Young Tse** whose telephone number is **(703) 305-4736**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Stephen Chin**, can be reached at **(703) 305-4714**.

Any response to this action should be mailed to:

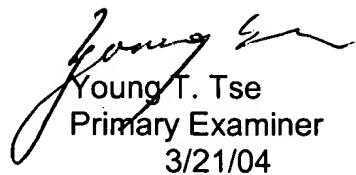
Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is **(703) 306-0377**.


Young T. Tse
Primary Examiner
3/21/04